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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,528	07/24/2001	Jaime A. Ampuero Auza	KP2310USNA	4837
23906	7590	05/18/2004	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			TORRES VELAZQUEZ, NORCA LIZ	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,528

Applicant(s)

AMPUERO AUZA ET AL.

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.
- 4a) Of the above claim(s) 8,9,14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/4/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/4/04 have been fully considered but they are not persuasive. Applicant's arguments with respect to claims 1, 2-7 and 10-13 have been considered but are moot in view of the new ground(s) of rejection.

a. Applicants have provided the TOKARSKY (US 4,698,267) and SUZUKI (WO 01/07713 A1) to show that it is well known to those of ordinary skill in the art that fibrids, including MPD-I fibrids, function as binders in nonwoven fibrous paper-like structures.

Applicant's remarks are noted, however, the term "Fibrids" as defined by the reference provided by Applicants and as defined in the "Dictionary of Fiber & Textile Technology", KOSA, defines the term as a short, irregular fibrous products, made by mixing a dilute polymer solution with a non-solvent with agitation. These are used in felts, in papermaking, for filtration products, etc. While fibrids can be used as binders, it is the Examiner's position that their used is not limited to be used only as a binder.

b. With regards to Applicants arguments regarding the "resin impregnatable structure", the Examiner maintains her position that this is a limitation of intended use and the prior art of record provides all the structural limitations claimed herein, therefore, must meet the intended use of being able to be impregnated by a resin.

c. Applicant's arguments, see pages 4-5 of reply to advisory action, filed 5/4/04, with respect to the GROSS reference have been fully considered and are persuasive. The

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35 U.S.C. 103(a) over HENDREN in view of GROSS of claims 3, 5-7, 11 and 13 has been withdrawn.

d. A new rejection over HENDREN in view of TOKARSKY is stated below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-7 and 10-13 rejected under 35 U.S.C. 103(a) as being unpatentable over HENDREN et al. (US 4,886,578) in view of TOKARSKY (US 4,698,267).

HENDREN et al. discloses a process for making a high heat resistant oil-impregnatable insulating board that has 35-60 wt.% aromatic polyamide fibrous materials (that equates to the wettable structural organic floc of the present invention), preferably Poly (m-phenylene isophthalamide) (MPD-I) [which equates to the term meta-aramid], and 40-65 wt.% polytetrafluoroethylene (PTFE), fibrous material (that equates to the fluoropolymer floc of the present invention). Preferably 0-20wt% are MPD-I floc and at least 35 wt.% are MPD-I fibrils. (Column 1, lines 51-61) The reference further teaches that fibrous materials include floc, pulp and fibrils. (Column 2, line 6) The reference further teaches that the sheet is produced by a dispersion of the fibrous material, a method similar to a papermaking method. (Column 3, lines 12-28) With regards to claim 4, it is noted that polytetrafluoroethylene (PTFE) is a perfluorinated straight-chain high polymer. (Encyclopedia of Polymer Science and Technology)

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It is noted that the reference teaches in their example a material with a basis weight of 2165 g/m^2 that corresponds to a sample made by pressing 11 plies of waterleaf. (Refer to Column 3, lines 22-32) Therefore, each layer of waterleaf has a basis weight of 196.8 g/m^2 and a thickness of 8.9 mils [which is equal to 0.226 mm]. These values clearly anticipate the presently claimed values of basis weight and thickness. The reference teaches pressing several layers of waterleaf [paper like sheet like], material in order to produce a rigid board.

However, the reference fails to teach the use of a binder.

TOKARSKY relates to high-density para-aramid papers. The reference teaches the use of floc, pulp and fibrils and teaches the use of binders such as fibrils or binder resins and indicated that these type of binders greatly facilitate the handling of the para-aramid papers during the preparation of the papers and are essential when the papers are to be continuously impregnated with resin for the preparation of laminates. The reference teaches that when continuous papermaking processes are used, binder at less than 5 percent, by weight, of total solids provides inadequate effect and at more than 25 percent, by weight, of total solids is not generally retained by the fibers. (Column 3, lines 40-50)

It is the Examiner's position that fibrils as well as binder resins are suitable binders for the materials used by HENDREN as taught by TOKARSKY in the making of aramid papers above.


Since both reference are directed to making fibrous materials including floc, pulp and fibrils, the purpose disclosed by TOKARSKY would have been recognized in the pertinent art of HENDREN.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the heat resistant insulating material of HENDREN and provide with a resin binder with the motivation of facilitating the handling of the material during preparation as disclosed by TOKARSKY above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Norca L. Torres-Velazquez
Examiner
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May 17, 2004